

CLAIMS

We claim:

- 1 1. A method of cross-cutting a web having a repeated sequence of at least two
2 printed pages with different heights, said method comprising:
3 moving said web in a running direction; and
4 cutting said web transversely to said running direction successively by means of
5 a cross-cutting device to form sheets having section lengths corresponding to said
6 heights.
- 1 2. A method as in claim 1 wherein said cross-cutting device comprises a knife
2 cylinder having at least one cutting knife which rotates about an axis parallel to a cutting
3 line, said method comprising:
4 supplying said web at an approximately constant speed to said cross-cutting
5 device;
6 driving said knife cylinder to rotate by means of a motor;
7 cutting said web to form a sheet by operating said knife cylinder, during cutting,
8 at a circumferential speed corresponding approximately to the web speed;
9 selecting a movement sequence from a memory in accordance with the height of
10 the next printed page to be cut; and
11 predefining said movement sequence to said motor so that the next sheet is cut
12 with a section length corresponding to the height of the next printed page.

1 3. A method as in claim 2 further comprising:
2 printing said web in a web-fed rotary printing pressing having a plate cylinder
3 driven by a motor controlled by a drive controller;
4 communicating the rotary position of the plate cylinder from the drive controller to
5 a computing and storage unit comprising said memory; and
6 predefining the movement sequence for said motor of said knife cylinder in said
7 computing and storage unit cyclically so that the position of the web is synchronized the
8 rotary position of the plate cylinder.

1 4. A method as in claim 1 wherein said cross-cutting device comprises means for
2 severing said web by means of a beam or a jet, said method comprising:
3 severing said web by aiming said beam or said jet toward said web by means of
4 a deflection device;
5 selecting the height of the next printed page to be severed from a memory; and
6 controlling said deflection device so that the next sheet is cut with a section
7 length corresponding to the height of the next printed page.

1 5. A method as in claim 4 further comprising:
2 providing a signal which takes into account the continuous position of the web;
3 and
4 connecting said signal to said deflection device.

1 6. A method as in claim 4 further comprising:
2 providing a signal which takes into account the contour of a cut which differs from
3 a straight line;
4 connecting said signal to said deflection device; and
5 deflecting beam or said jet in accordance with said contour, leading and trailing
6 said running direction.

1 7. A method as in claim 4 wherein said cross-cutting device comprises means for
2 severing said web by means of a laser beam.

1 8. A method as in claim 4 wherein said cross-cutting device comprises means for
2 severing said web by means of a water jet.

3 9. A method as in claim 1 comprising feeding said web from a web-fed rotary press
4 to said cross-cutting device.

1 10. A method as in claim 1 comprising feeding said web from an unwind device to
2 said cross-cutting device.